



Tohoku International School

Secondary School Course Syllabus

Course Title: Biology	Teacher: Ms. Constance Bahn Email: cbahn@tisweb.net
Grade Level(s): Grade 9-10	Time Frame: 37 weeks
<p>Course Description: This course furthers students' understanding of the processes that occur in biological systems. Students will study theory and conduct investigations in the areas of cells; nutrition; genetic processes; the structure and function of animals; and the anatomy, growth, and function of plants. The course focuses on the theoretical aspects of the topics under study, and helps students refine skills related to scientific investigation. As this course is presented to students in grade 9 & 10, further study of advanced topics would be required in order to pursue further studies in various branches of the life sciences and related fields.</p>	
<p>Course Philosophy: Biology, the study of life, allows students to gain an understanding of the structures, functions and processes of living things. Students will appreciate the interconnectedness of all life forms and be able to make more informed decisions about themselves and the world around them. Studying Biology allows for a wide variety of future career choices. We will have group discussions and dispel popular myths while sustaining a practical and hands-on classroom when learning new topics. Our Biology course at TIS acts as an introduction to the key areas of biological knowledge. To achieve this, the course will be delivered through constructivist and co-operative methods.</p>	
<p>Course Objectives: Students will:</p> <ul style="list-style-type: none"> ● demonstrate scientific investigation skills (related to both inquiry and research) in the four areas of skills (initiating and planning, performing and recording, analysing and interpreting, and communicating); ● demonstrate an understanding of the basic structure of cells through investigating the structures and functions of cells, and the factors that influence cellular activity, using appropriate laboratory equipment and techniques; ● demonstrate an understanding of the process of meiosis, and explain the role of genes in the transmission of hereditary characteristics. ● investigate, through laboratory inquiry or computer simulation, the anatomy, physiology, and response mechanisms of mammals; ● demonstrate an understanding of the structure, function, and interactions of the circulatory, digestive, and respiratory systems of mammals. ● investigate the products of metabolic processes such as cellular respiration and photosynthesis; ● investigate the feedback mechanisms that maintain homeostasis in living organisms; 	
<p>Units of Study:</p> <ol style="list-style-type: none"> 1 Characteristics & Classification of Living Things 2 Natural Selection & Evolution 3 Cells & Enzymes 4 Genetics & Inheritance 5 Nutrition 6 Transport & Respiration 	
<p>Assessment: Assignments & Lab Reports [30%] Quizzes & Tests [30%] Semester Projects [30%]</p>	

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Biology (cont'd)

Learning Skills [10%]

BREAKDOWN OF COURSE ASSESSMENT

Assignments & Lab Reports – 30%

The Biology course is designed with a focus on inquiry, investigation, modeling, and problem-based learning. Thus, the major component of the grade will consist of class work in the form of various assignments and lab work.

Quizzes & Tests – 30%

Students should expect to have one major test at the end of each unit of study in this course. Quizzes dealing with concepts taught in class can be expected to take place on a regular basis to assess and modify learning assignment. Students will be given **at least** one week's notice prior to a test.

Semester Projects – 30%

These major evaluation tools for this course are meant for the students to apply what they have learned throughout each semester and the year.

Learning Skills – 10%

Attendance, organization, homework completion and the ability to take initiative and work independently and in groups all play a role in student success and are important for achieving the course expectations.

Extra Assistance:

Please arrange to meet ahead of time if you would like to ask questions about the material. You may also send questions or requests through the email address above.

Assignments:

- ALL homework and assignments should be completed and ready *before* class. .
- All students must demonstrate **responsibility** in completing and submitting assignments. If a due date cannot be met, you must **communicate** with Ms. Bahn.

Late Assignments:

If an assignment is submitted after it has been marked and returned to the class or taken up in class, the student may receive a mark of zero. If a student fails to submit an assignment and has not made arrangements with his/her teacher, the student may receive a mark of zero.

Resources:

Textbook: Biology for IGCSE

Additional Notes:

Absences:

- In the case of an absence, it is *your* responsibility to get the missing notes and work from your classmates or teacher.
- In the event of an *anticipated* absence (extracurricular competition, appointment, family trip, etc.), students are expected to discuss the absence with Ms. Bahn at least 1 day prior to leaving to obtain any assignments and notes. Long absences should be discussed at least one week in advance of the absence. Students are expected to have assignments completed upon the day they return to school.

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